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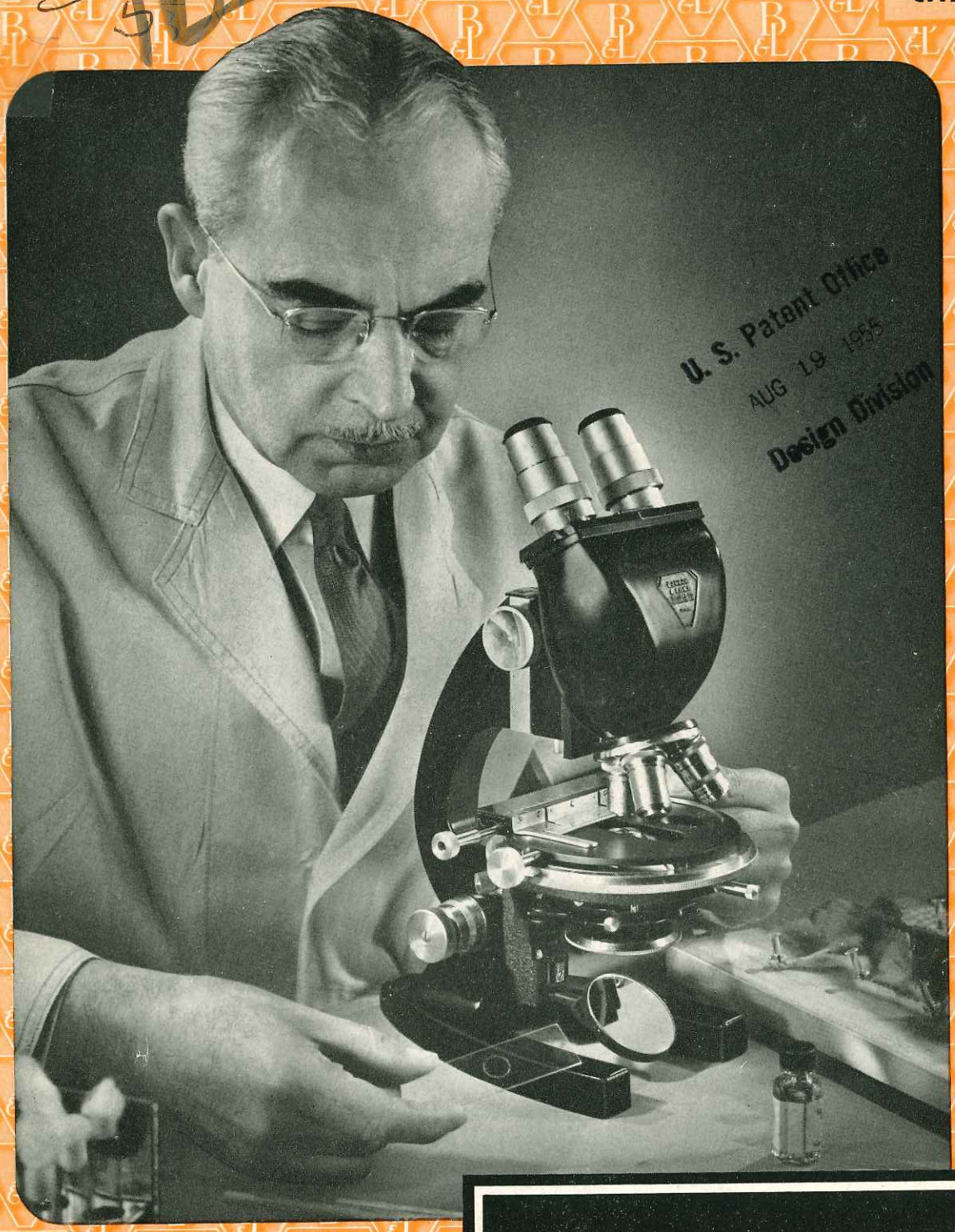
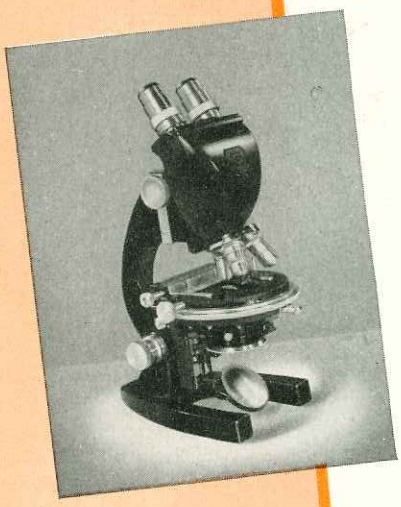
CATALOG D-1010



U. S. Patent Office
AUG 19 1955
Design Division

BAUSCH & LOMB
RESEARCH MICROSCOPES
SERIES E

BAUSCH & LOMB RESEARCH MICROSCOPES SERIES E



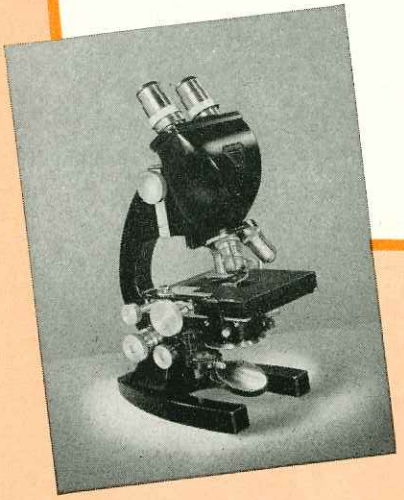
ARISTOCRATS

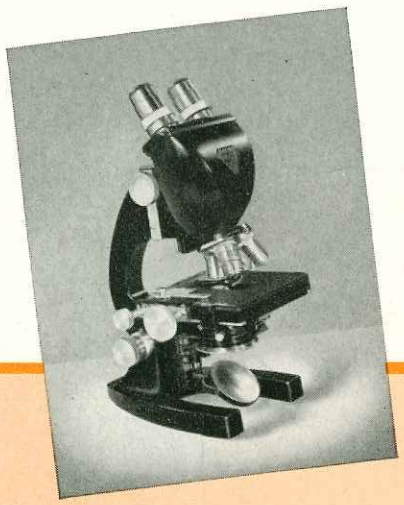
and they will work for you

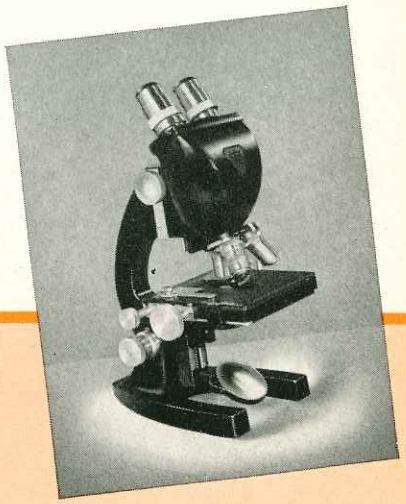
To perform satisfactorily at the research level, a microscope must be designed with optical and mechanical equipment of the very highest quality. The capacity of each optical part must not be any less than the maximum which today's knowledge and experience can effectuate. Mechanical components must permit exhaustive study of a wide variety of specimens.

These Bausch & Lomb Research Microscopes are filling those requirements in laboratories where the most exacting demands must be satisfactorily met. Optically they are superb examples of advances in the design and production of lenses, resulting from years of research and experimentation.

The Balcoted* optical elements, with their anti-reflection, flare-reducing treatments faithfully render images without the glassy haze which, so often, with untreated lenses, detracts from the fullest appreciation of the object, particularly in the darker areas of high contrast specimens. (*Balcote is the trade name for the Bausch & Lomb anti-reflection lens treatment.)







U. S. Patent Office
AUG 19 1955
Design Division

EQUIPMENTS

for the most exacting needs

All models of the "E" Series are built on the same stand —a design incorporating features which users have found most desirable from the standpoints of efficiency, convenience and long life.

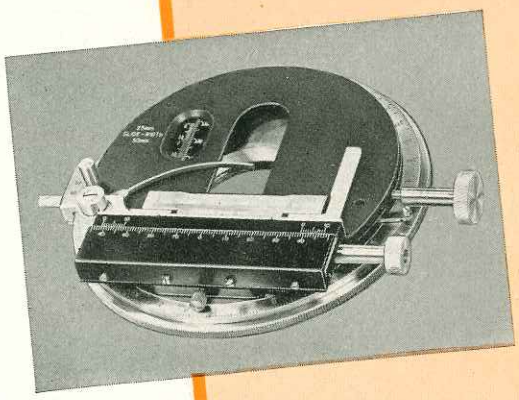
Individual preferences and the general type of work to be done determine the desired equipment. While the binocular body with parallel, inclined eyepieces is standard equipment, a graduated, monocular draw tube can be furnished as an extra for special applications. Revolving nosepieces are available for either 2, 3 or 4 objectives.

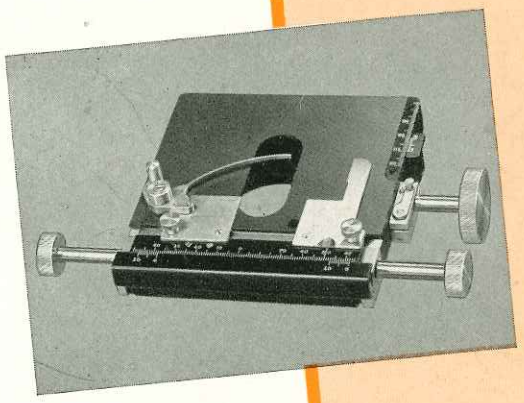
Stages are integral, mechanical, and graduated, either rectangular or circular, centerable, rotatable. Standard equipment is the curved slide holder, but as an extra, a special holder is available.

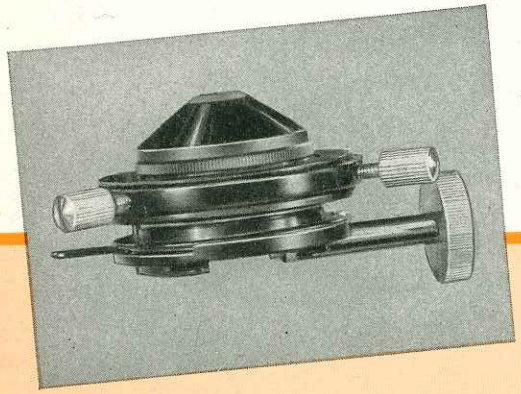
Three types of substage provide wide choice according to the degree of refinement desired. The double mirror is regularly plano-concave, but a first-surface aluminized plane reflector can be ordered as an extra.

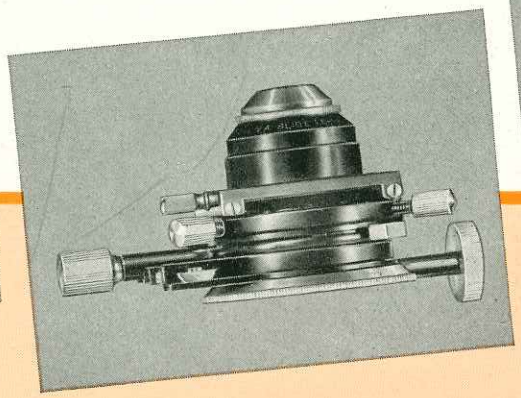
Selection of eyepieces, objectives, and condensers can be made from the many types produced by Bausch & Lomb for a wide range of research microscopy.

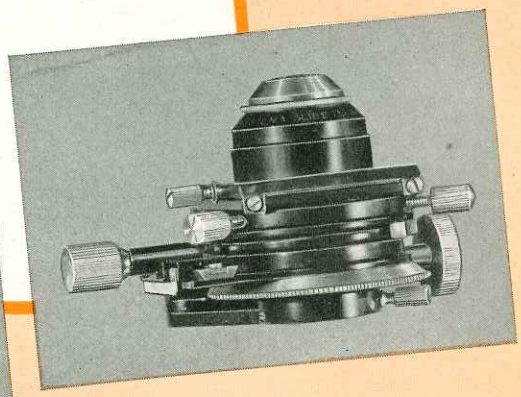
This catalog illustrates and describes the more commonly used equipments, while, if a standard model will not fill the bill, the Company will gladly recommend arrangements for specialized work.











BAUSCH & LOMB RESEARCH MICROSCOPES SERIES E

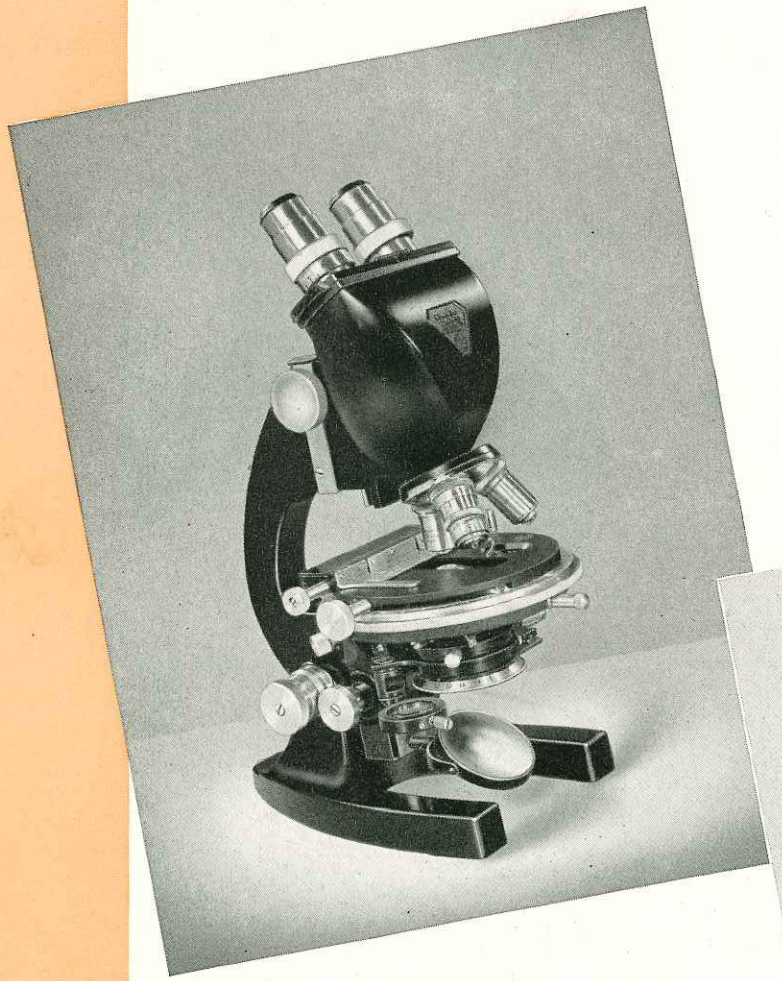
All needed strength and stability are built into the Model E Stand. The combination V-U base furnishes a solid foundation for the arm and stage with their attachments, yet it occupies a minimum of table space.

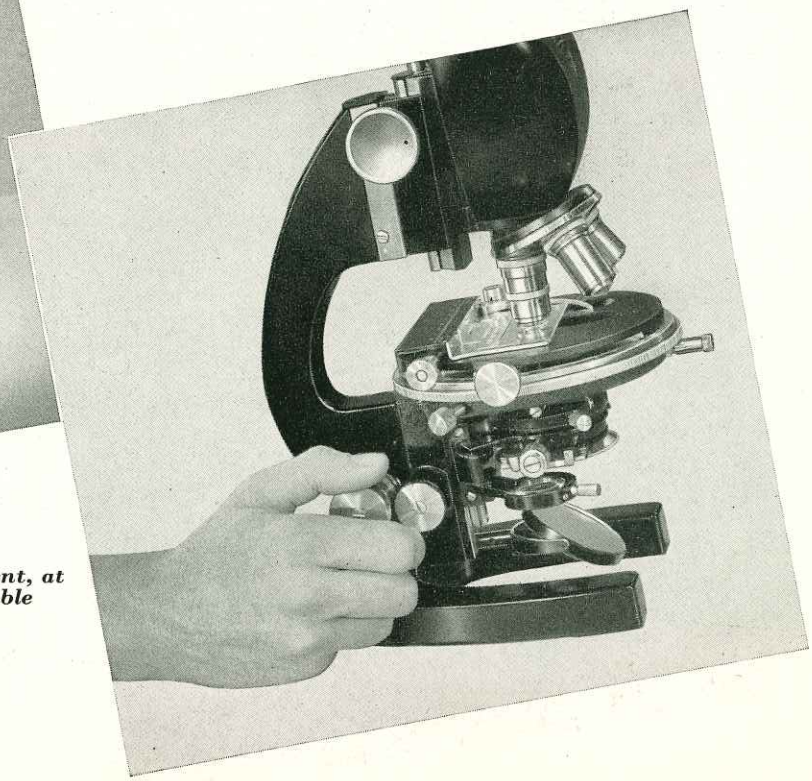
An inclination joint with an adjustable tension unites the base pillar and the arm. Of generous cross-section the arm supports the heavy binocular body and coarse adjustment without flexure. At the same time, the arm is curved deeply enough to provide ample clearance for the operating buttons and space for large petri dishes and gross objects. On the revolving stage models, the wide curve of the arm permits full rotation of the stage.

For visual research work a binocular body is indispensable. A normal sight process using both eyes puts the researcher at ease and allows the necessarily extended observations to be made with a minimum of visual fatigue, while the inclined, parallel eyepiece tubes allow a relaxed posture, free from physical tension and conducive to more comprehensive results.

The monocular draw tube, supplied as an extra for photomicrography, measuring microprojection and other special applications, is adjustable and graduated from 146mm to 172mm in tube length.

A strong stand with convenient controls, in a well-balanced unit





Low position fine adjustment, at comfortable height from table

U. S. Patent Office
AUG 19 1955
Design Division

Coarse focusing is of the matched rack and pinion design with special metals to insure smooth, positive movement for a lifetime of use. Adjusting screws permit operator to set focusing pressure to suit his own preference.

Fine focusing has been given the attention it so well merits in the design of the Series E. Located in the inclination joint so that the user's arm and hand are always in a comfortable, relaxed position, this adjustment is of the ball bearing type. Binocular microscopes, to operate at top efficiency, and with a minimum of wear, require this advanced design fine focusing mechanism.

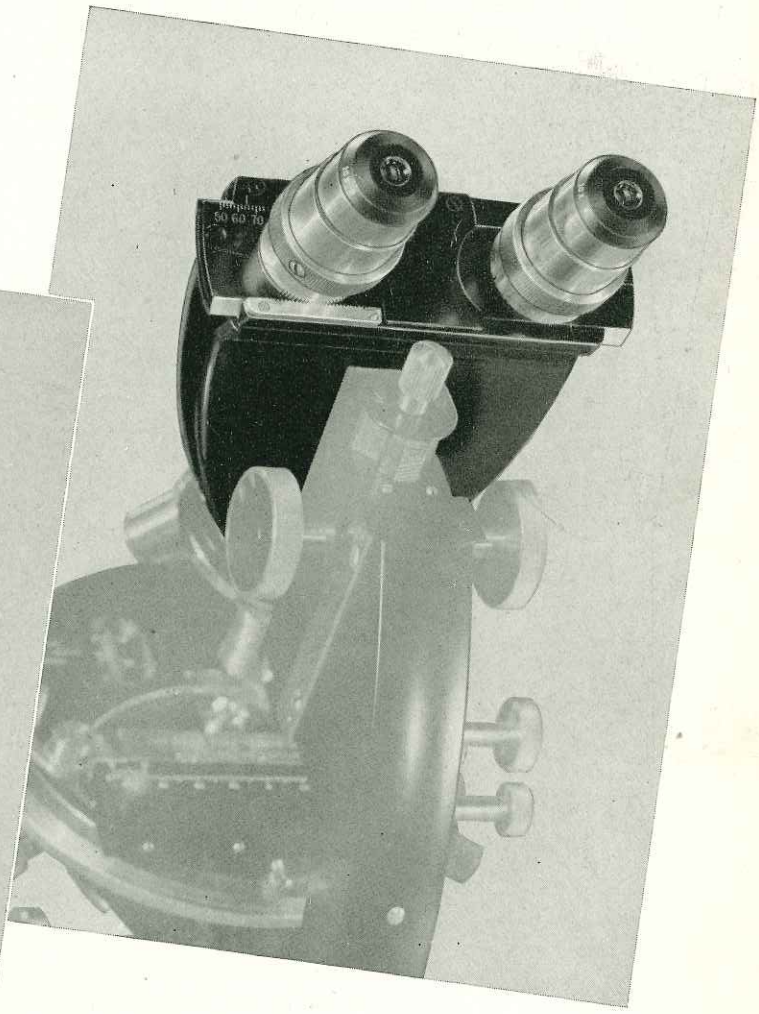
As with the coarse adjustment, there is a control knob on each side so that either hand may be used. The right-hand knob has a drum graduated in 1 micron of objective travel, while a stop prevents the objective from striking the slide.

Lifetime accuracy permits precise measurement of depth of specimen and repeated settings for its planes of critical focus.

Smoothness, permanent optical alignment and freedom from wear feature the *Roto-sphere* revolving nosepiece. Ball bearings around the periphery carry the weight perfectly distributed throughout the entire circumference. A compensator distributes the right pressure to all bearing points, cancelling wear, if any ever develops.

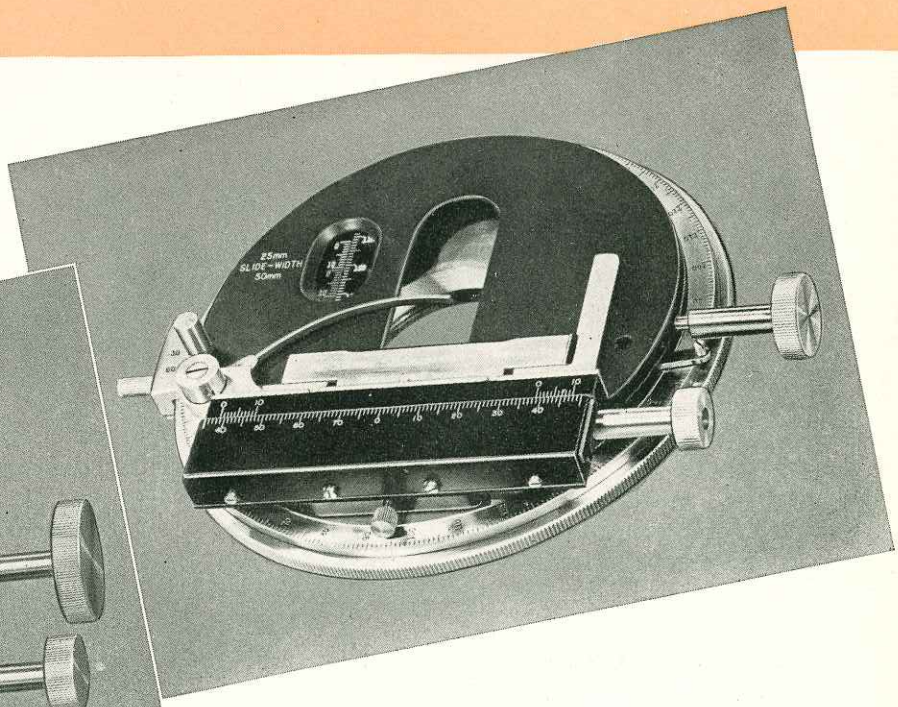
A ball-stop insures accurate positioning of the objective. Repeat settings are identical. The design of the nosepiece permits any of the objectives fitted to it to be placed in any aperture and be parfocal and centered.

Interpupillary distance and acuity balance settings easily repeated

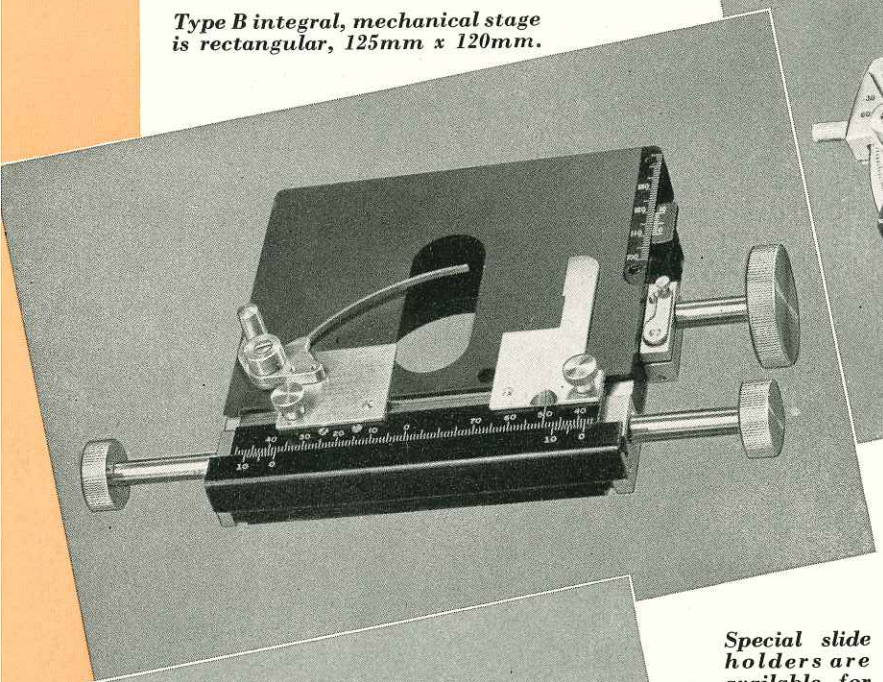


Binocular body and monocular tube quickly interchangeable

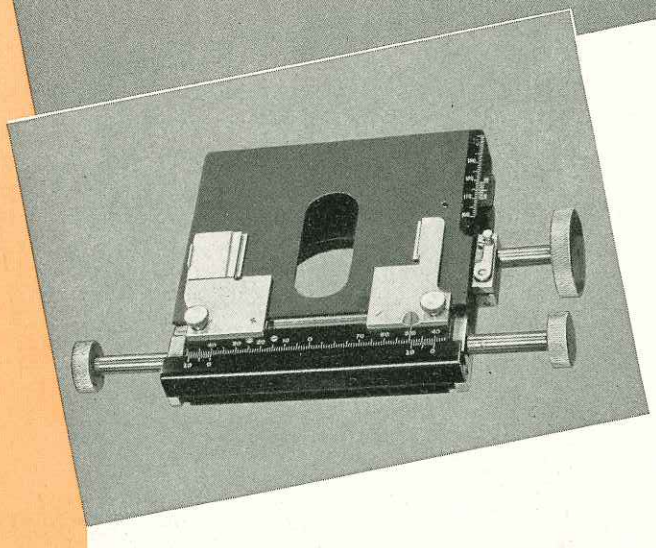
Type D integral, mechanical stage is circular, rotatable, centerable.



Type B integral, mechanical stage is rectangular, 125mm x 120mm.



Special slide holders are available for Type B stage.



A choice between two types of stages is offered. While Stage Type D is a most valuable aid in visual work, it is particularly recommended for use in photomicrography, and wherever orientation of the specimens in relation to the axes of the field is desired, or with polarized light.

Less complicated but entirely adequate for most classes of visual microscopy, the Type B stage is rectangular in design.

Both stages feature a large central aperture to allow oil immersion contact between the slide and substage condenser. Ample space for the manipulation of large specimens on the top of each stage is provided.

The Type D circular stage is 125mm in diameter with its periphery graduated and fitted with a vernier reading to 6 minutes of arc. Vertical knurling makes for easy finger-tip control and for locking there is a thumb screw in the vernier mount.

The stage revolves through 360° on a carefully fitted cone bearing fully protected from damage by foreign materials. Two screws 120° apart center the stage which can then be locked by a screw cap.

The transverse mechanism detaches as a unit from the stage plate providing a flat, clear area with one mechanical movement in any direction. Transverse travel is 75mm and front to back movement 50mm, allowing the entire area of a 2″ x 3″ slide to be searched.

Designated as Type B, the rectangular stage is 120mm by 125mm. Object slides up to 50mm x 75mm can be securely held or the entire area may be cleared by removal of the two slide holders. Transverse motion is through 75mm and back to front travel 37mm. Each motion is graduated and provided with verniers.

Controls are conveniently near the low position fine adjustment knobs but of different sizes to avoid confusion.

In the front to back motion the entire stage surface moves by rack and pinion and transversely by multiple screw; just the slide holders on their metal base are shifted.

Special slide holders which keep the slide 1mm above the stage surface are available at extra cost on Type B stage.

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Design Division

Substage equipment is of three types, the Advanced Type R, Standard Type N, and Simple, Centerable Type C.

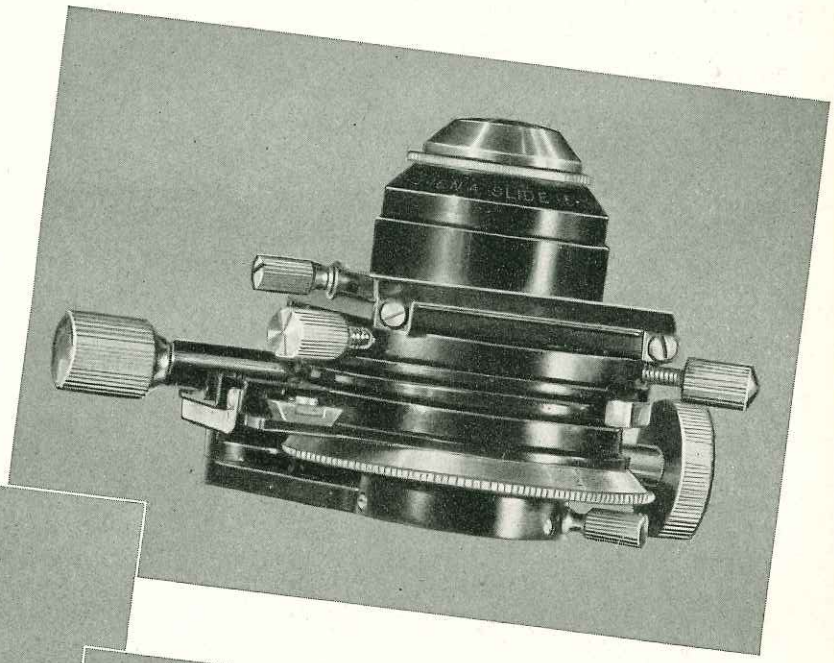
The Advanced Substage is the most elaborate and features an adjustment for extremely fine focusing as well as a swing-out auxiliary condenser. With the latter it is possible to fill the field of a low power objective with the regular condenser in high position for high power work. After a field has been selected with the "finder" objective, the auxiliary condenser is swung out of the optical path and the normal condenser is then already in position for detailed study at higher powers.

Both the Advanced Substage and the Standard have a dovetail into which the condenser slide is precision fitted, a centering adjustment, and a rotatable, decenterable iris diaphragm in a swing-out mount. This iris is graduated in millimeters of opening, and, when decentered by its rack and pinion adjustment, produces oblique illumination from any azimuth by rotating the mount.

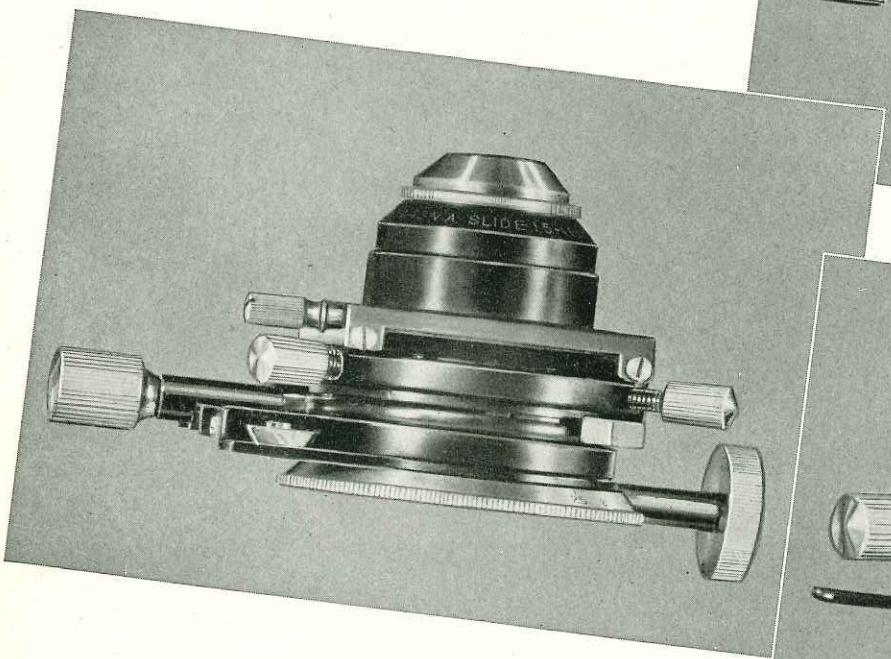
The swing-out mount is provided with an aperture into which a substage polarizer, filter, or dark ground stop can be inserted.

A swing-out auxiliary condenser, similar to the one which is regular equipment on the Advanced Substage, can be fitted to the Standard Substage at extra cost.

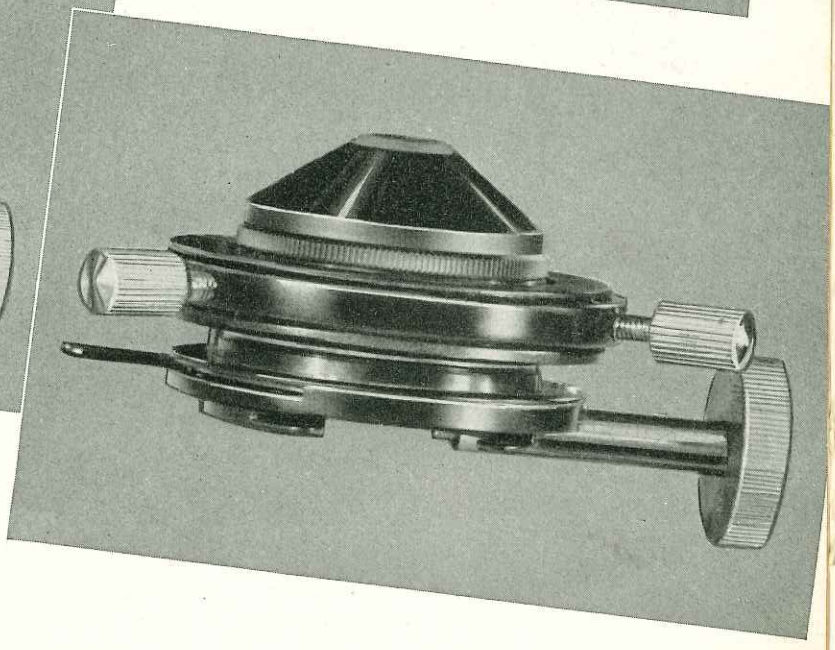
Type C Simple, Centerable Substage is the regular full 360° ring type with a built-in centering adjustment.



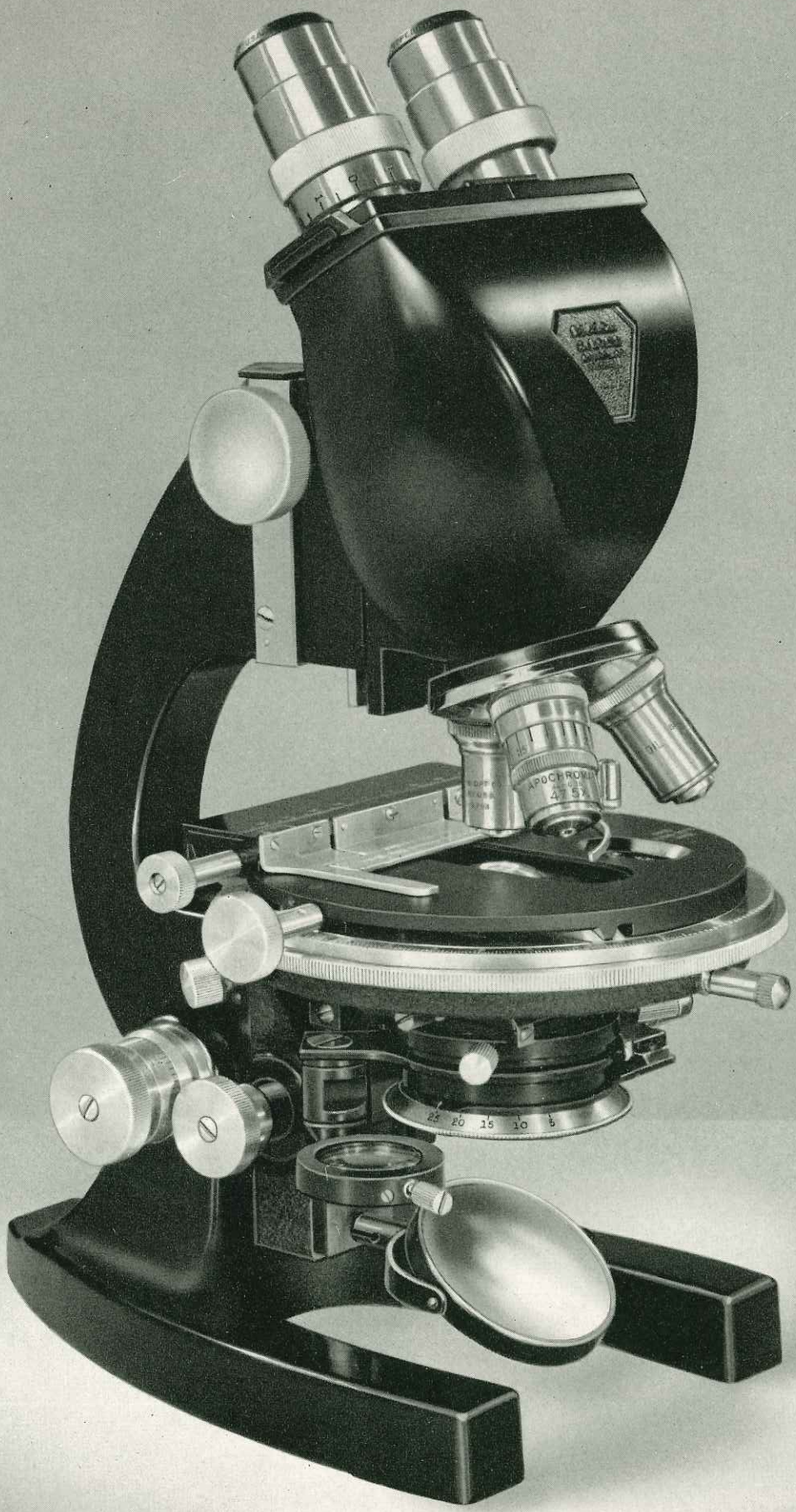
Type R Substage has an extremely fine focusing adjustment and swing-out auxiliary condenser.



Type N Substage, centering, has swing-out mount for rotatable, decenterable, iris diaphragm.



Type C Substage, with centering adjustment, accepts various substage accessories.



The EDR group

U. S. Patent Office
AUG 19 1955
Design Division

Circular, Rotatable Mechanical Stage

Advanced Research Substage

Interchangeable, inclined binocular body.

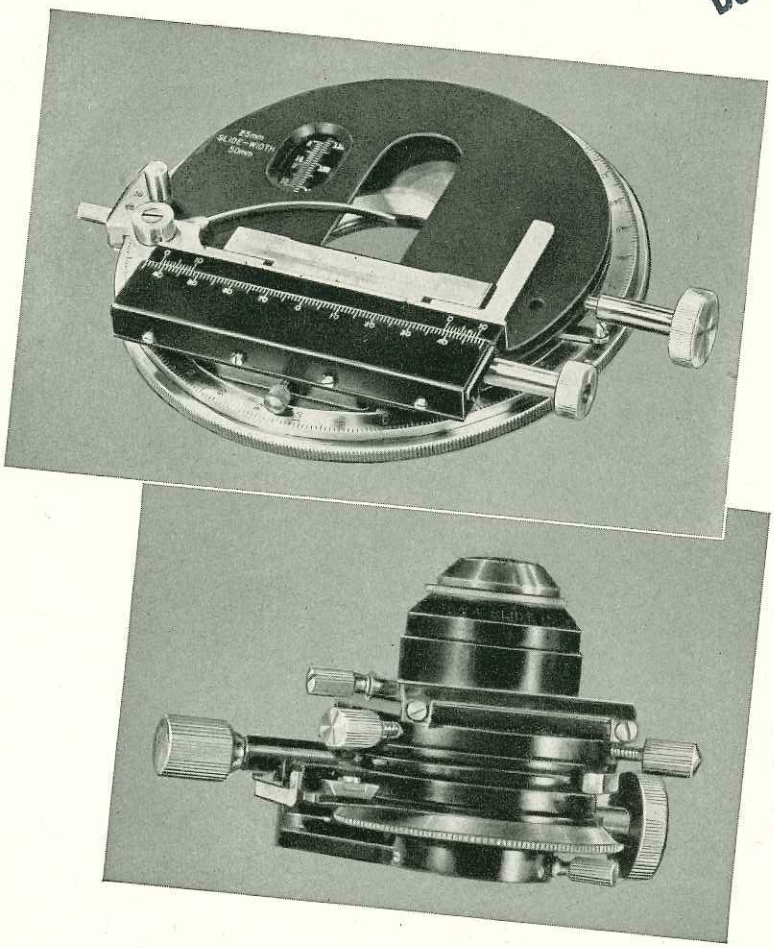
Standard B&L rack and pinion coarse adjustment.

B&L patent low position, ball bearing fine adjustment.

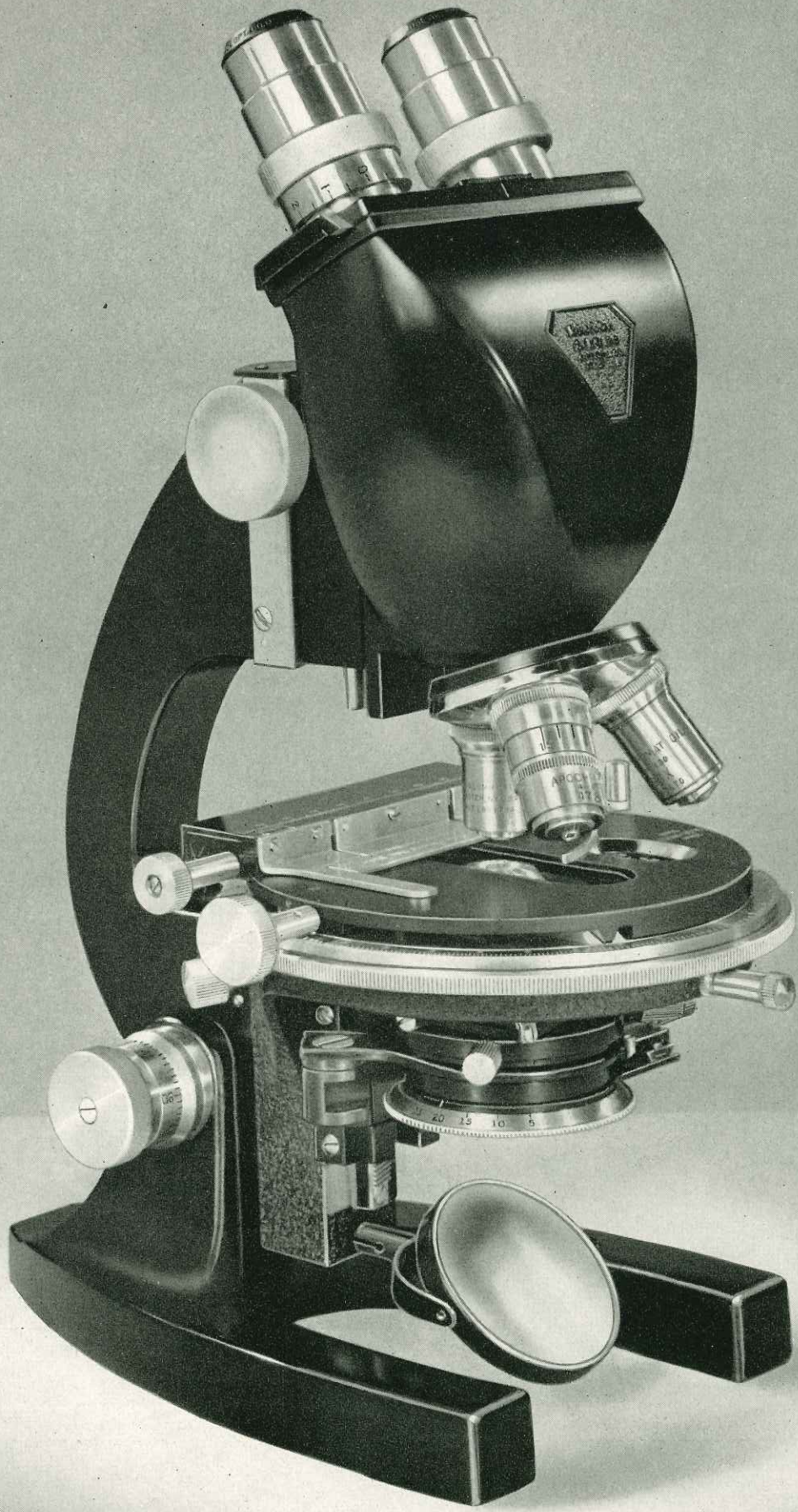
Plano-concave mirror, 55mm diameter.

Polished hardwood cabinet, with handle, lock and key.

Balcoted, anti-reflection, optical elements.



Model	Nosepiece	Objectives		Paired Eyepieces	Condenser
		Dry	Oil		
EDR-88	Triple	Achromatic 10×, 16mm 43×, 4mm	Achromatic 97×, 1.8mm 1.25 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EDR-90	Triple	Achromatic 10×, 16mm 43×, 4mm	Fluorite 98×, 1.8mm 1.30 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EDR-98	Triple	Apochromatic 10×, 16mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 12.5×	Achromatic 1.40 N.A.
EDR-99	Quadruple	Apochromatic 10×, 16mm 20×, 8.3mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 10×, 12.5×, 25×	Achromatic 1.40 N.A.



The EDN group

Circular, Rotatable Mechanical Stage

Standard Research Substage

Interchangeable, inclined binocular body.

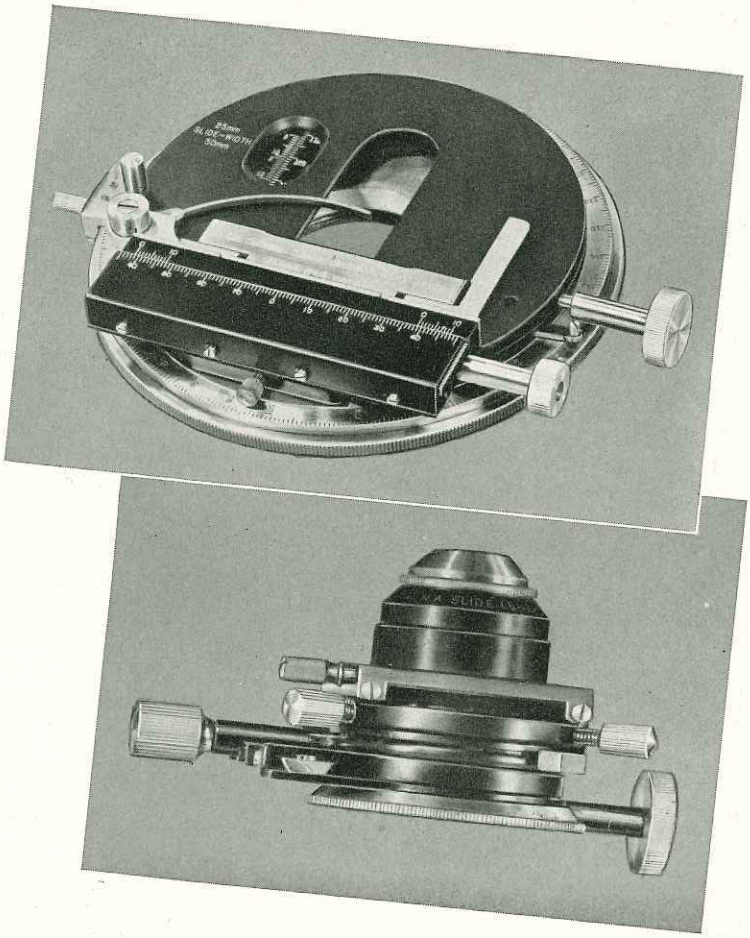
Standard B&L rack and pinion coarse adjustment.

B&L patent low position, ball bearing fine adjustment.

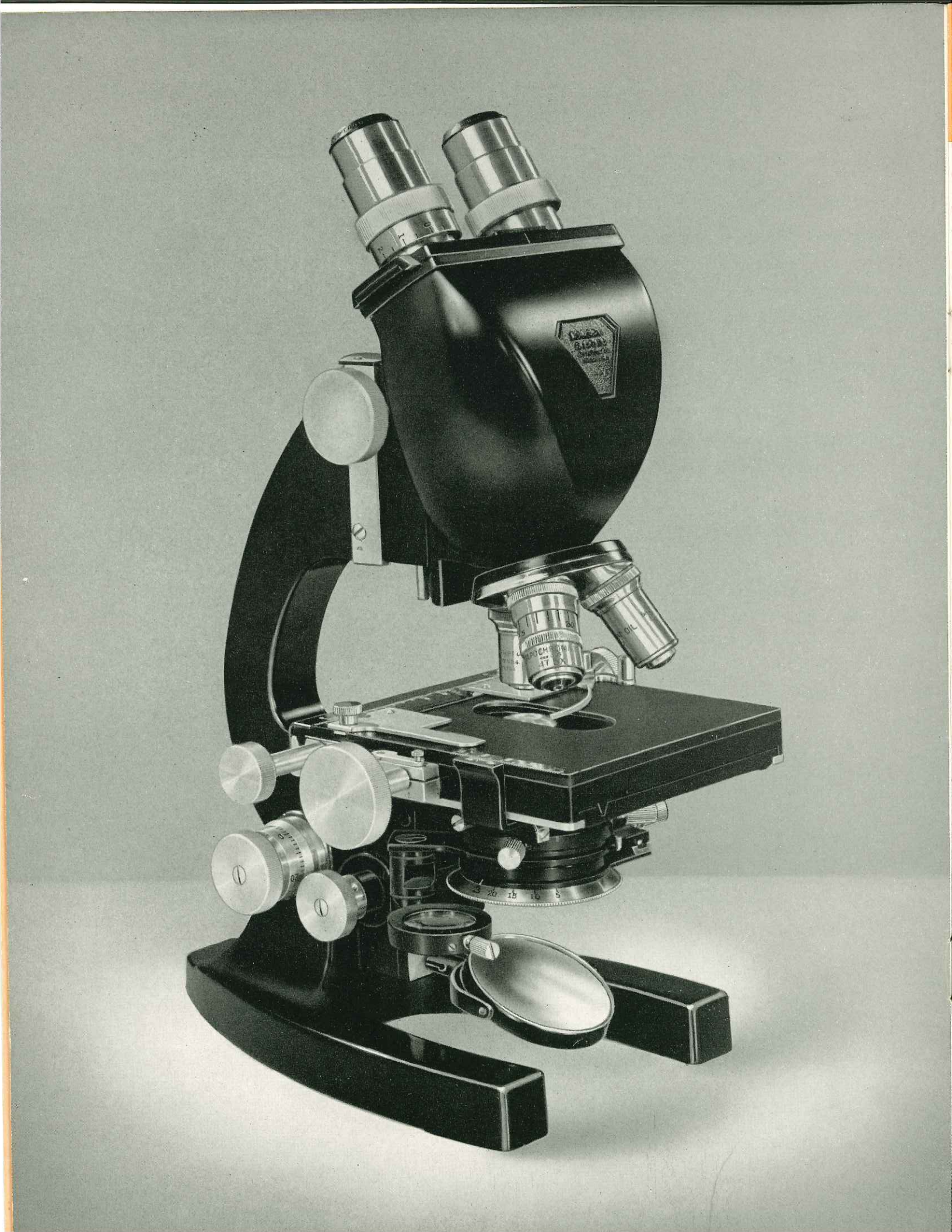
Plano-concave mirror, 55mm diameter.

Polished hardwood cabinet, with handle, lock and key.

Balcoted, anti-reflection, optical elements.



Model	Nosepiece	Objectives		Paired Eyepieces	Condenser
		Dry	Oil		
EDN-88	Triple	Achromatic 10×, 16mm 43×, 4mm	Achromatic 97×, 1.8mm 1.25 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EDN-90	Triple	Achromatic 10×, 16mm 43×, 4mm	Fluorite 98×, 1.8mm 1.30 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EDN-98	Triple	Apochromatic 10×, 16mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 12.5×	Achromatic 1.40 N.A.
EDN-99	Quadruple	Apochromatic 10×, 16mm 20×, 8.3mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 10×, 12.5×, 25×	Achromatic 1.40 N.A.



The EBR group

U. S. Patent Office
AUG 19 1955
Design Division

Rectangular Mechanical Stage

Advanced, Research Substage

Interchangeable, inclined binocular body.

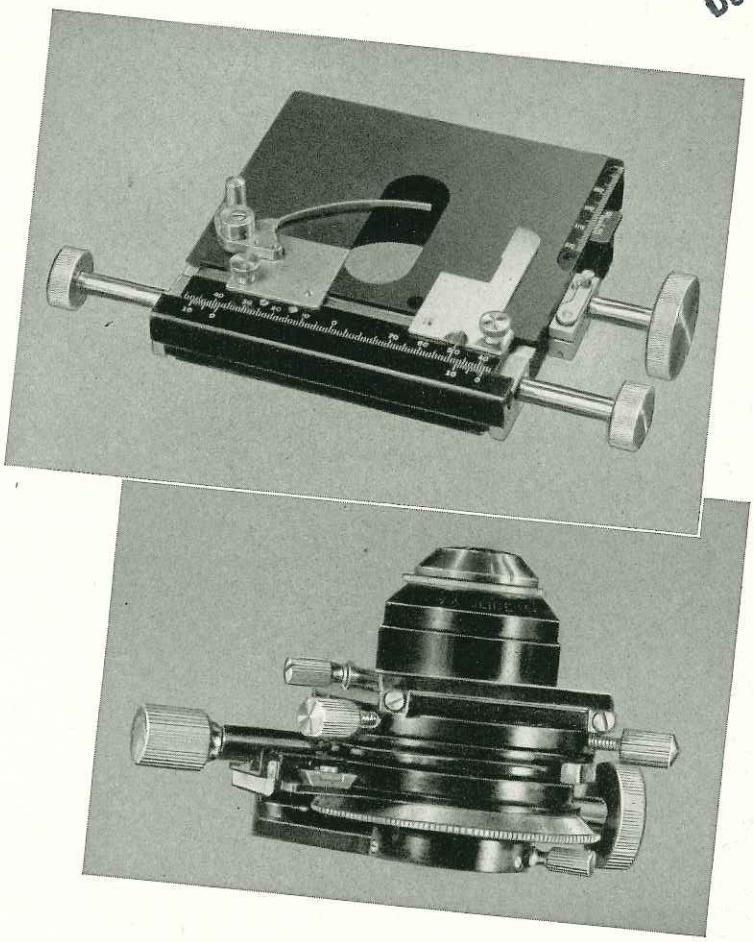
Standard B&L rack and pinion coarse adjustment.

B&L patent low position, ball bearing fine adjustment.

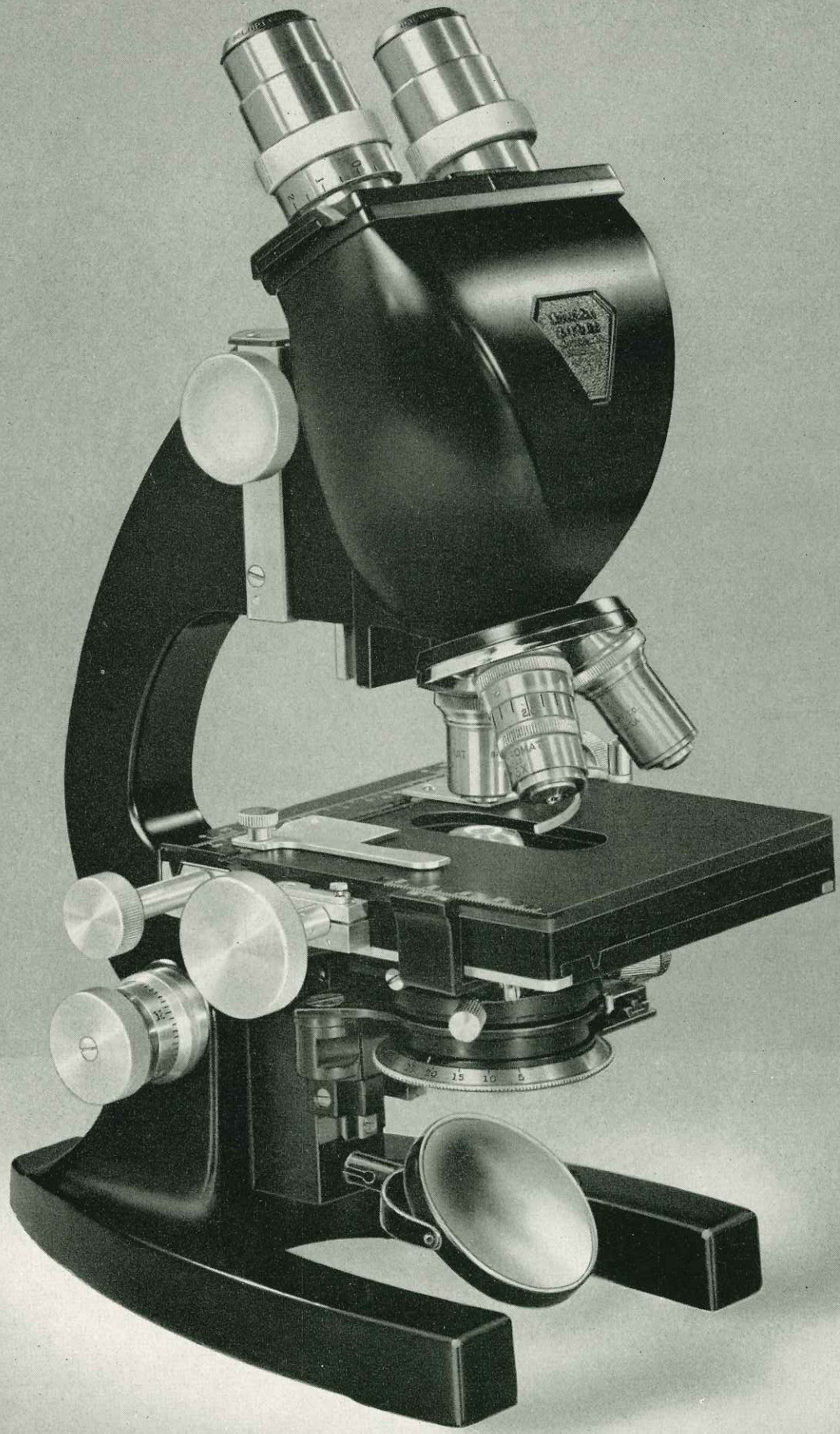
Plano-concave mirror, 55mm diameter.

Polished hardwood cabinet, with handle, lock and key.

Balcoted, anti-reflection, optical elements.



Model	Nosepiece	Objectives		Paired Eyepieces	Condenser
		Dry	Oil		
EBR-88	Triple	Achromatic 10×, 16mm 43×, 4mm	Achromatic 97×, 1.8mm 1.25 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EBR-90	Triple	Achromatic 10×, 16mm 43×, 4mm	Fluorite 98×, 1.8mm 1.30 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EBR-98	Triple	Apochromatic 10×, 16mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 12.5×	Achromatic 1.40 N.A.
EBR-99	Quadruple	Apochromatic 10×, 16mm 20×, 8.3mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 10×, 12.5×, 25×	Achromatic 1.40 N.A.



The EBN group

Rectangular Mechanical Stage

Standard Research Substage

Interchangeable, inclined binocular body.

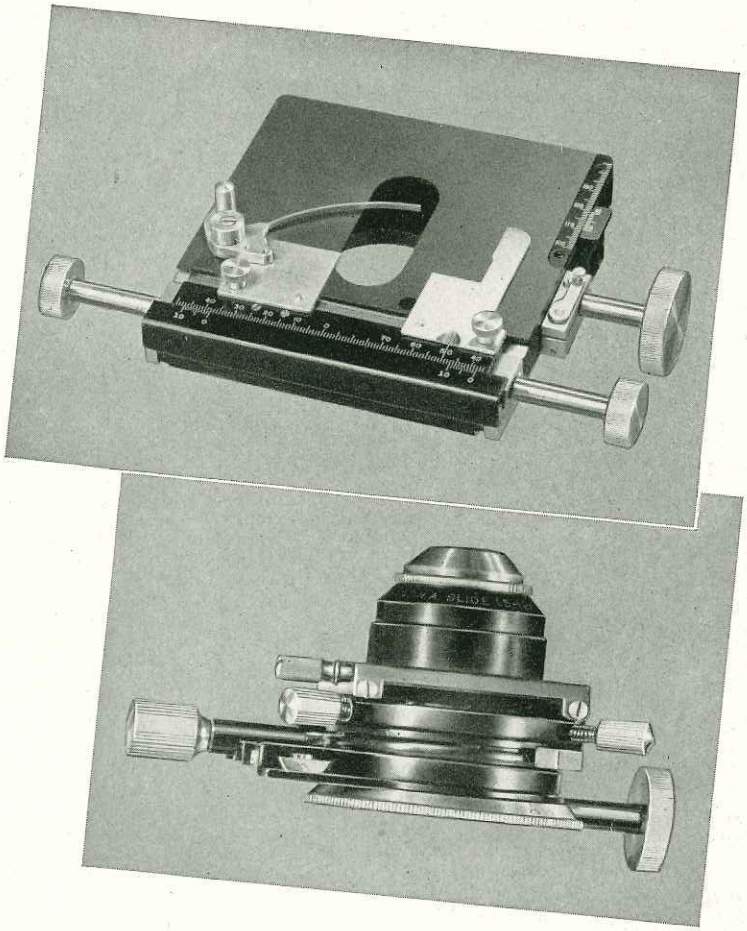
Standard B&L rack and pinion coarse adjustment.

B&L patent low position, ball bearing fine adjustment.

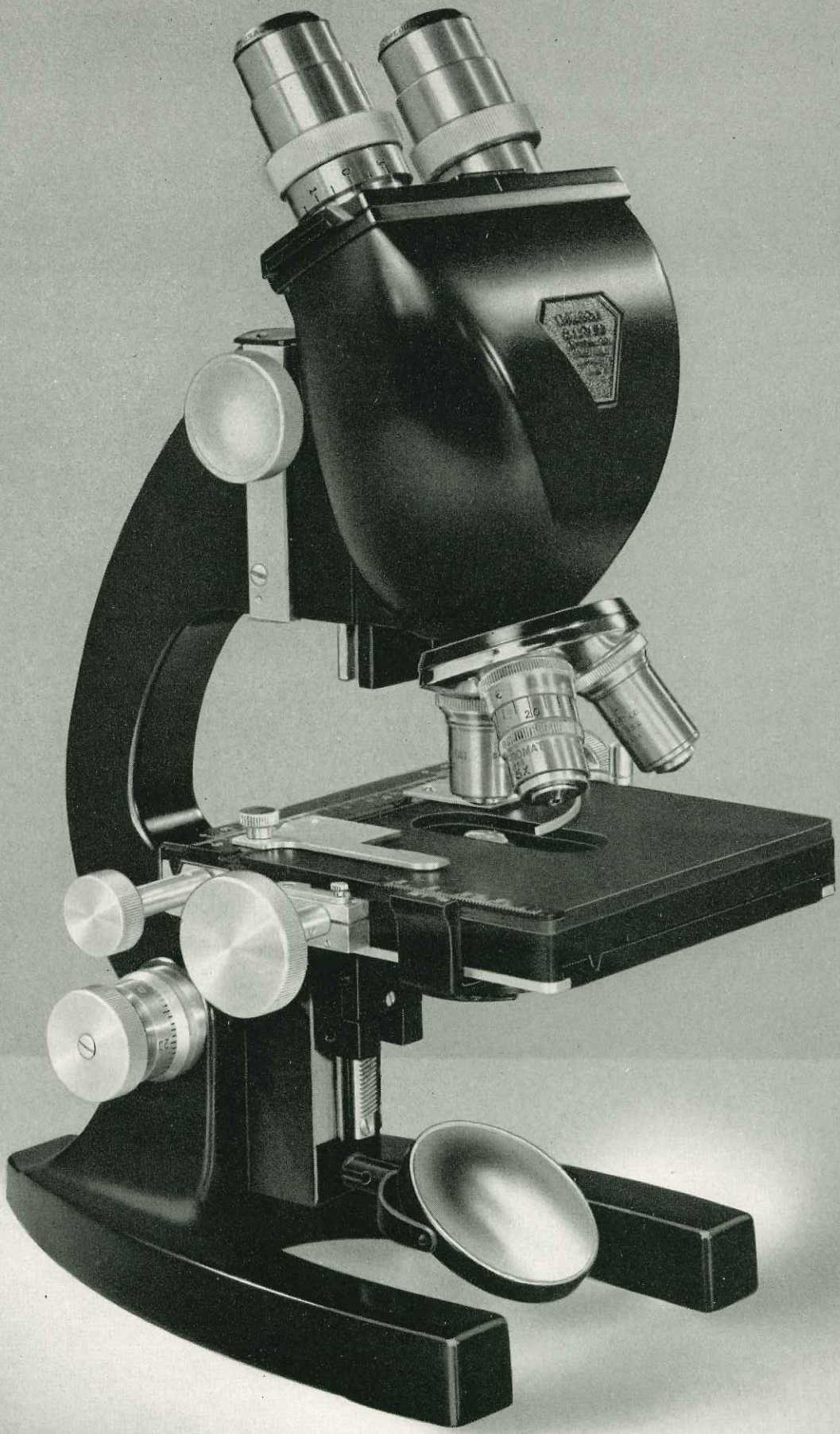
Plano-concave mirror, 55mm diameter.

Polished hardwood cabinet, with handle, lock and key.

Balcoted, anti-reflection, optical elements.



Model	Nosepiece	Objectives		Paired Eyepieces	Condenser
		Dry	Oil		
EBN-88	Triple	Achromatic 10×, 16mm 43×, 4mm	Achromatic 97×, 1.8mm 1.25 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EBN-90	Triple	Achromatic 10×, 16mm 43×, 4mm	Fluorite 98×, 1.8mm 1.30 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EBN-98	Triple	Apochromatic 10×, 16mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 12.5×	Achromatic 1.40 N.A.
EBN-99	Quadruple	Apochromatic 10×, 16mm 20×, 8.3mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 10×, 12.5×, 25×	Achromatic 1.40 N.A.



The EBC group

Rectangular Mechanical Stage

Simple Centerable Substage

Interchangeable, inclined binocular body.

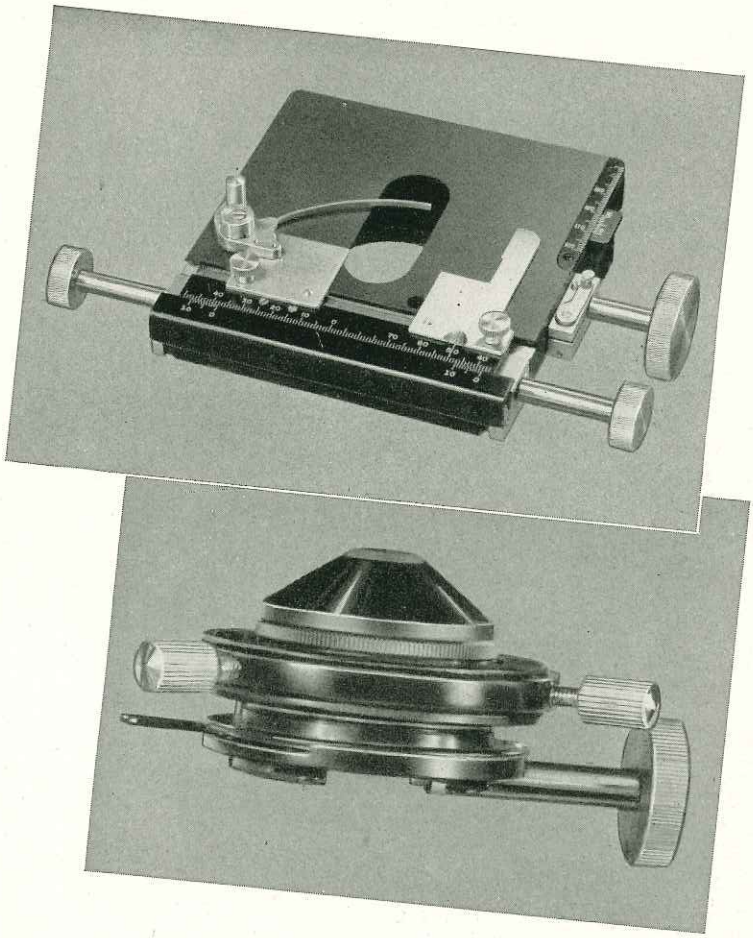
Standard B&L rack and pinion coarse adjustment.

B&L patent low position, ball bearing fine adjustment.

Plano-concave mirror, 55mm diameter.

Polished hardwood cabinet, with handle, lock and key.

Balcoted, anti-reflection, optical elements.



Model	Nosepiece	Objectives		Paired Eyepieces	Condenser
		Dry	Oil		
EBC-88	Triple	Achromatic 10×, 16mm 43×, 4mm	Achromatic 97×, 1.8mm 1.25 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EBC-90	Triple	Achromatic 10×, 16mm 43×, 4mm	Fluorite 98×, 1.8mm 1.30 N.A.	Huygenian 5×, 10×	Abbe 1.25 N.A.
EBC-98	Triple	Apochromatic 10×, 16mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 12.5×	Achromatic 1.40 N.A.
EBC-99	Quadruple	Apochromatic 10×, 16mm 20×, 8.3mm 47.5×, 4mm	Apochromatic 90×, 2mm 1.30 N.A.	Compensating 7.5×, 10×, 12.5×, 25×	Achromatic 1.40 N.A.

ACCESSORIES AND OPTIONAL EQUIPMENT

In this catalog, series E models ending in the numbers 88 and 90 are regularly supplied with Abbe 1.25 N.A. substage condensers and the "98" and "99" models with achromatic 1.40 N.A. condensers.

Phase Contrast

If phase contrast illumination is desired, the Long Working Distance Phase Condenser can be placed on the substage of any of these microscopes and diaphragm stop inserted for the objective to be used. This equipment is fully described in catalog D-104.

Dark Field

All of the substages will accommodate paraboloid and cardioid condensers.

Illuminator-Condenser

The Panfocal Illuminator can be mounted on the models in the EBN and EDN groups in place of the condenser and mirror. This accessory is an entirely self-contained illuminator-condenser. Because the condensing system and aperture diaphragm move synchronously, it is always possible to co-ordinate the N.A. of the condenser and that of the objective, from .10 to 1.40. Also instant change from one to another of the three types of illumination, viz., bright field, dark field, and polarized light, is made. See Catalogs D-1034 and D-119.

Polarized Light

For certain types of work disc polarizers and analyzers (Polaroid) are extremely advantageous and these accessories, also, can be used with the "E" microscopes. Likewise, as previously stated, filters and dark ground stops can be accommodated. See price list.

First Surface Reflector

While the regular equipment includes a plano-concave mirror, a first surface aluminized plano mirror to secure a single reflection and for ultra-violet illumination is available. See price list.

Research Illuminator

Suitable illumination is, of course, essential and the Research Illuminator is the most satisfactory independent light source for the E Series microscopes. With combination filter and water cell holder, four neutral glass and one daylight filter and either 100-w. lamp, or 6-v. ribbon filament lamp, this equipment will suitably complement these research instruments. See catalog D-119.

Metal Baseboard

To align the microscope and illuminator accurately and permanently an All-Metal Baseboard is essential. This base can be ordered with or without a Research Illuminator as desired. Also listed in catalog D-119.

Special Slide Holder

The special slide holders will not injure slide glasses while holding them firmly 1mm above the surface of the stage, frequently desirable in oil immersion work. See price list.

Centering Nosepiece

A quick-change centering nosepiece, consisting of a tube part and, for each objective, an objective part, provides rapid and accurate centering. Objectives are centered by the objective part and may be interchanged without disturbing the established alignment. See price list.

Alternate Objectives

The four optical equipments shown in the listings on the preceding pages are those most in favor in the majority of laboratories. However, where they may not be completely suitable for some specialized research work reference should be made to catalog D-184 for a complete listing of achromatic, fluorite and apochromatic objectives, plus Huygenian, hyperplane, compensating and wide field eyepieces.

Graduated Draw Tube

The graduated 50mm diameter draw tube, available as an extra, fits any model in the E Series, interchanges with the binocular body. A clamping collar holds the draw tube in a fixed position until a change in tube length is desired. See page 4 and also the price list.

THE PRICE LIST

The price list enclosed is for your convenience in ordering microscopes and equipment and for determining costs.

Should it be mislaid or lost, a line to us at Rochester 2, New York, will bring you a new price list.

BAUSCH & LOMB OPTICAL CO.

TERMS AND PROCEDURE

CATALOG NUMBERS

When ordering, be sure to give catalog number and name of item.

FINANCIAL STANDING

To avoid delay, a purchaser with whom Bausch & Lomb has not previously transacted business should accompany his first order with commercial references or remittance in cash.

TRANSPORTATION CHARGES

Unless otherwise stated on a B&L quotation, all consumer purchases, except repairs, will be shipped transportation charges prepaid to any point within Continental United States of America. Other-than-consumer purchases, all repairs, and goods for delivery outside the above specified area will be shipped f.o.b. Rochester, N. Y., U. S. A. The shipping charges on products sent on memorandum are not prepaid. There is no charge for packing unless otherwise stated. Products made on special order cannot be forwarded C. O. D.

SHORTAGE OR DAMAGE

To avoid error, Bausch & Lomb exercises the utmost care in checking and packing all shipments. All packing should be carefully examined for small items. If a discrepancy is found, report it to Bausch & Lomb immediately. Report to the transportation company at once any claim for loss, damage or breakage. Carriers are responsible for loss or damage to goods in transit. When shipping container shows damage, do not give a clear receipt, but sign for "in bad order." Save the container and obtain an inspection report from the carrier.

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If it is desired to return goods, first send Bausch & Lomb full information by letter. Goods should not be returned for any reason until approval for their return has been received from Bausch & Lomb. Each item should be plainly tagged with sender's name and address. Identification tags will be sent on request.

ELECTRICAL EQUIPMENTS

Electrical equipments for use on voltages other than those listed are available on special order. Send complete specifications for quotations.

INQUIRIES

When writing, please give the date of your order, the Bausch & Lomb order number which appears on the packing slip and, if possible, the Bausch & Lomb invoice number.

PRICES

Prices are subject to change without notice. Orders are subject to acceptance at Rochester, N. Y., U. S. A., at prices prevailing at time of shipment. Orders for standard items may be cancelled if not wanted because of price advance. Excise taxes or other governmental charges will be added wherever applicable. Shipments to points outside Continental United States of America and to its territories, dependencies and possessions, except Hawaii and Alaska, are not subject to excise taxes. Delivery dates are estimated and cannot be guaranteed.

DESIGN CHANGES

Bausch & Lomb reserves the right to make changes in instrument design in accordance with scientific progress, and to supply apparatus resultingly different from that described or illustrated in its literature.

BAUSCH & LOMB OPTICAL CO.

Rochester 2, New York, U. S. A.

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SAN FRANCISCO, CALIFORNIA	Bausch & Lomb Optical Co., 20 Jones Street
MONTREAL, QUEBEC, CANADA	Bausch & Lomb Optical Co., Ltd., 1449 St. Alexander Street
TORONTO, ONTARIO, CANADA	Bausch & Lomb Optical Co., Ltd., 388 Yonge Street
LONDON, ENGLAND	Bausch & Lomb Optical Co., Ltd., Africa House, Kingsway, W. C. 2
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STOCKHOLM, SWEDEN	Aga-Bausch & Lomb, A. B., Malmskillnadsgatan 39v

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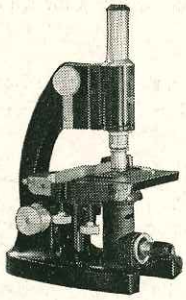
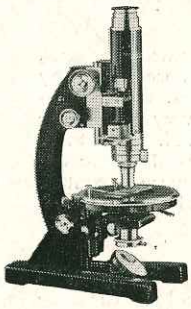
ADDITIONAL OPTICAL EQUIPMENT

The instruments described in this catalog are part of the complete Bausch & Lomb line. A few others, all essential to the well-equipped microscope laboratory, are shown below. Catalogs describing these top quality "tools of science" will be sent you on request.



DARK FIELD MICROSCOPES

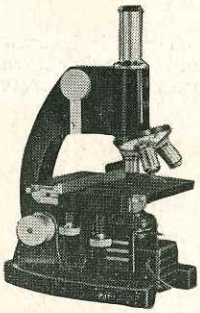
An optical system for use with various types of condensers for the widest range of examination.



POLARIZING MICROSCOPES

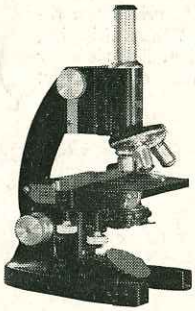
Finding increased applications in practically every field of microscopy the popularity of these modern instruments is growing.

U. S. Patent Office
AUG 19 1955
Design Division



LABORATORY MICROSCOPES

There is a Bausch & Lomb Microscope for every need—from student to advanced research.

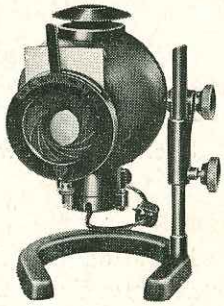


PHASE CONTRAST ACCESSORIES

Two types of condensers furnish a choice of equipment for this latest technique for the examination of living specimens.

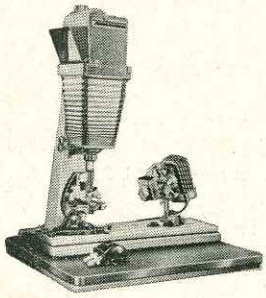
STEREOSCOPIC MICROSCOPES

A complete line of Wide Field instruments, featuring dustproof prism housings, improved optical elements.



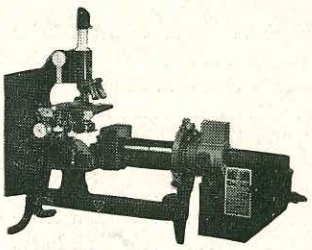
MICROSCOPE ILLUMINATORS

The most extensive series of high grade instruments for any microscope illumination problem.



PHOTOMICROGRAPHIC EQUIPMENT

A variety of Cameras for satisfactory use in microscopy from routine to the research level.



MICRO-PROJECTION EQUIPMENT

Wide range of types to answer the needs of a diversity of users in education, and general laboratory work.

BAUSCH & LOMB OPTICAL CO.

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D-1010, 8.5, AUG. '53

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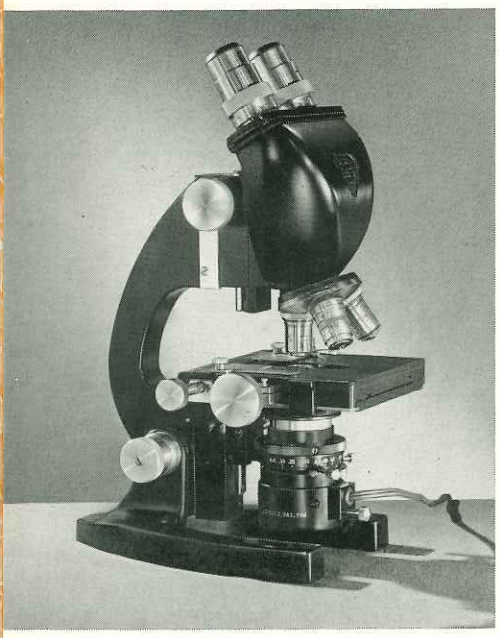
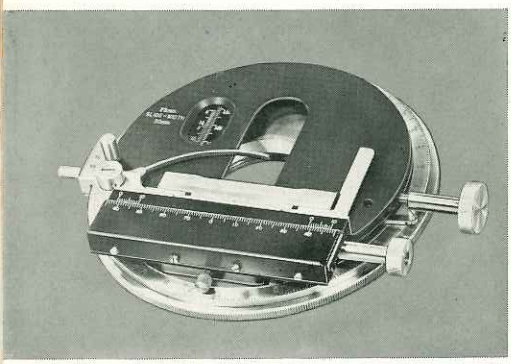
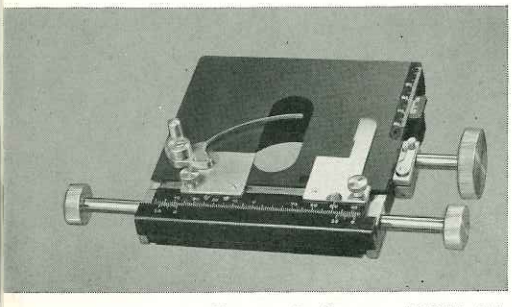
BAUSCH & LOMB RESEARCH MICROSCOPES WITH BUILT-IN ILLUMINATION



Model EBP



Circular Stage on EDP Models



Rectangular Stage on EBP Models

Many important advantages accrue from integration of the light source with the microscope. The convenience of an integral illuminator results in welcome saving of valuable time, plus the certainty of always having the proper illumination immediately available.

Research Microscopes in Series E are available factory-fitted with the Panfocal Illuminator-Condenser. This combination assures the very utmost in convenience and quality of illumination. Simplicity of operation assures anyone, regardless of experience, full realization of the maximum benefits from the high quality optical elements of these instruments.

The Panfocal is a fully corrected achromatic condenser, adjustable for numerical apertures from 0.10 to 1.40 by an indexed, rotatable ring. A circular disc permits bringing into the condenser axis a choice of red, blue, green, daylight or Polaroid filters, or (for objectives up to 0.65 N.A.) a dark ground stop. A centerable field iris diaphragm is provided.

Light source is a 2-candlepower, miniature type lamp. Regular equipment includes a 115-v., 60-cycle, A.C. transformer, adjustable from 3.5-v. to 8.5-v.

The five groups of Series E Microscopes are fully described in Catalog D-1010, but for a large share of research work those models listed below are in the greatest favor.

Group EBP Models have a 125mm x 120mm rectangular mechanical stage, graduated in millimeters with vernier reading to .1mm on both motions. A circular, rotatable stage, 125mm diameter, features the EDP Models. This stage is centerable and has a mechanical stage with one-millimeter graduations, and a .1mm vernier on the rectangular movements, as well as single degree, with .1-degree vernier, graduations on the revolving motion.

Optical elements of the binocular body, objectives and eyepieces are Balcoted on all air-glass surfaces, minimizing image degrading internal reflections.

Series E Research Microscopes with Built-in Illumination

Balcoted inclined binocular body, objectives and eyepieces; revolving nosepiece; Panfocal Illuminator; 115-v., 60-cycle, A.C., adjustable transformer (3.5-v.-8.5-v.); in polished wood cabinet with handle, lock and key.

Model	*Balcoted Objectives*	*Balcoted, Paired Eyepieces*	*Stage*	*Price*
EBP-91	Achromatic, 10×, 16mm, 0.25 N.A., 43×, 4mm, 0.65 N.A., and fluorite, 98×, 1.8mm, 1.30 N.A.	10× Huygenian and 12.5× compensating	Square	$1122.00
EDP-91			Circular	1150.00
EBP-98	Apochromatic, 10×, 16mm, 0.30 N.A., 47.5×, 4mm, 0.95 N.A., 90×, 2mm, 1.30 N.A.	7.5× and 12.5× compensating	Square	1422.00
EDP-98			Circular	1450.00
EBP-97	Achromatic, 3.5×, 30mm, 0.09 N.A., and apochromatic, 10×, 16mm, 0.30 N.A., 47.5×, 4mm, 0.95 N.A., 90×, 2mm, 1.30 N.A.	10× and 15× compensating	Square	1467.00
EDP-97			Circular	1495.00
EBP-99	Apochromatic, 10×, 16mm, 0.30 N.A., 20×, 8.3mm, 0.65 N.A., 47.5×, 4mm, 0.95 N.A., 90×, 2mm, 1.30 N.A.	7.5×, 10×, 12.5× and 25× compensating	Square	1663.00
EDP-99			Circular	1691.00

Optional Equipment and Accessories

Catalog No.	*Description*	*Price*
31-19-84	Monocular tube, 50mm diameter, with graduated drawtube and clamping collar, interchangeable with binocular body	$23.00
31-57-11	Polaroid cap analyzer for use with monocular body	12.00
31-57-37	Polaroid body tube analyzer for use with binocular body	25.00
31-31-95	Replacement lamp for Panfocal Illuminator	.11
31-15-51-02	Wide field eyepieces, 10×, paired	pair 29.00

Prices are subject to change without notice. Orders are subject to acceptance at Rochester, N. Y., U. S. A., at prices prevailing at time of shipment. Orders for standard items may be cancelled if not wanted because of price advance. Excise taxes or other governmental charges will be added wherever applicable. Shipments to points outside Continental United States of America and to its territories, dependencies and possessions, except Hawaii and Alaska, are not subject to excise taxes. Delivery dates are estimated and cannot be guaranteed.

BAUSCH & LOMB OPTICAL CO.

ROCHESTER 2, NEW YORK, U. S. A.

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D-1034, 5, Mar. '55, C-H

Printed in U.S.A.

PRICE LIST for CATALOG D-1010

BAUSCH & LOMB SERIES E RESEARCH MICROSCOPES

March 1, 1955

U. S. Patent Office
AUG 19 1955
Design Division

MICROSCOPES

Page 9

Model	Price
EDR-88	$ 973.00
EDR-90	1,028.00
EDR-98	1,422.00
EDR-99	1,663.00

Page 11

EDN-88	937.00
EDN-90	992.00
EDN-98	1,386.00
EDN-99	1,627.00

Page 13

EBR-88	945.00
EBR-90	1,000.00
EBR-98	1,394.00
EBR-99	1,635.00

Page 15

EBN-88	909.00
EBN-90	964.00
EBN-98	1,358.00
EBN-99	1,599.00

Page 17

EBC-88	889.00
EBC-90	944.00
EBC-98	1,338.00
EBC-99	1,579.00

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ACCESSORIES

Page 4

Description	Cat. No.	Price
Inclined Binocular Body.....	31-19-78	$200.00

Page 5

Double Revolving Nosepiece.....	31-19-22	15.00
Triple Revolving Nosepiece.....	31-19-23	18.00
Quadruple Revolving Nosepiece...	31-19-24	21.00

Page 7

Swing-out Auxiliary Condenser, fitted to Groups EBN or EDN microscopes, extra.....		17.00

Page 18

Achromatic Condenser, 1.40 N.A., Balcoted, for Types N and R Substages	31-58-83	78.00
Achromatic Condenser, 1.40 N.A., Balcoted, for Type C Substage.	31-58-85	78.00
Abbe Condenser, 1.25 N.A., Balcoted, for Types C, N, and R Substages	31-58-84	19.00
Condenser Slide for Types N and R Substages	31-58-09	5.00
Iris Diaphragm for Type C Substage	31-58-28	10.00
First Surface Aluminized Mirror..	31-50-22	10.50
Special Slide Holders, extra.....	31-59-06	3.00
Centering Nosepiece, Tube Part...	*31-19-11	Disc. No Stock
Centering Nosepiece, Objective Part	31-19-12	10.00
Graduated Draw Tube.....	31-19-84	23.00

POLARIZING ACCESSORIES

For EDR, EDN, EBR, and EBN Groups (with binocular body)		
Body Tube Analyzer.....	31-57-37	$25.00
Disc Polarizer.....	31-57-38	25.00
(No retardation plates available for use with these.)		
For EBC Group (with binocular body)		
Body Tube Analyzer.....	31-57-37	25.00
Disc Polarizer.....	31-57-15	19.00
(No retardation plates available for use with these.)		
For EDR, EDN, EBR, and EBN Groups (with monocular draw tube)		
Cap Analyzer.....	31-57-11	12.00
Retardation Plate, ¼ wave.....	31-57-44	11.00
Retardation Plate, 1st order red.....	31-57-45	16.00
Disc Polarizer.....	31-57-38	25.00
For EBC Group (with monocular draw tube)		
Cap Analyzer.....	31-57-11	12.00
Retardation Plate, ¼ wave.....	31-57-44	11.00
Retardation Plate, 1st order red.....	31-57-45	16.00
Disc Polarizer.....	31-57-15	19.00

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D-1010, 4.5, MAR. '55

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